Dell PowerConnect W-620 Controller

Installation Guide

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http://www.arubanetworks.com/open_source

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Preface

This preface includes the following information:

- An overview of the contents of this manual
- A list of related documentation for further reading
- Aruba support and service information

General Overview

- Chapter 1, "About the W-620 Controller" on page 7 provides a detailed hardware overview of the Aruba 620.
- Chapter 2, "W-620 Series Installation" on page 13 provides rack mounting and installation instructions.
- Appendix A, "Specifications, Safety, & Compliance" on page 15 includes product technical specifications, safety, and regulatory compliance information.

Related Documentation

The following documentation are referred to in this guide and are considered components of the complete documentation set needed for a successful installation and management of an Dell Controller.

- *Dell PowerConnect ArubaOS 5.0 Quick Start Guide*
- *Dell PowerConnect ArubaOS 5.0 User Guide*
- *Dell PowerConnect ArubaOS 5.0 Command Line Reference*

Contacting Dell

Web Site Support	
Main Site	www.dell.com
Support Site	support.dell.com
Documentation	support.dell.com/manuals
Software	https://download.dell-pcw.com

Chapter 1

About the W-620 Controller

The Dell PowerConnect W-620 Series Controller is an enterprise-class, wireless LAN controller. This controller connects, controls, and integrates wireless Access Points (APs) and Air Monitors (AMs) into a wired LAN system. The W-620 Series is capable of supporting up to 8 external, campus connected APs.

Minimum Software Requirements

The W-620 Series Controller requires ArubaOS 5.0.2 or later.

Note: The master controller, its redundant master controller, and all of its local controllers must run on the same code of ArubaOS. Once you upgrade your network and install an W-620 Series Controller into your network, verify that the software version on your controller matches the rest of your network.

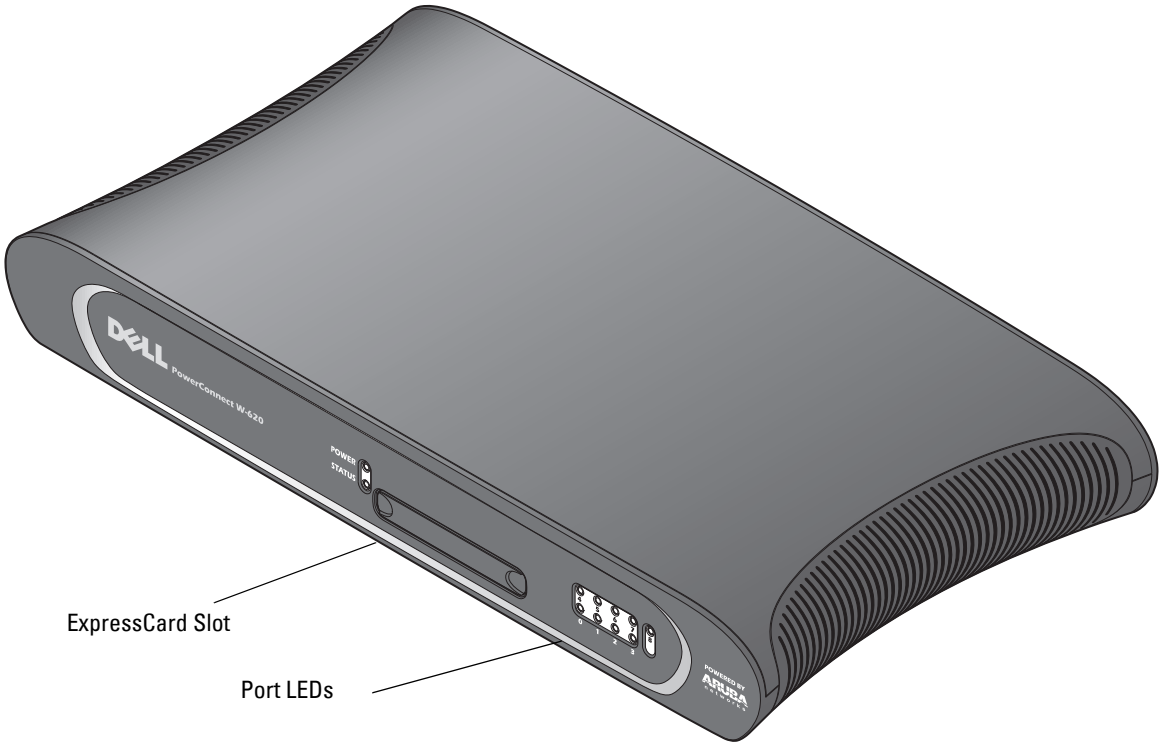
- W-620 Series Controller
- AC Power Cord (country-specific)
- Flat Serial Cable (RJ-45)
- Rubber Feet (for table top deployments)
- Serial Console Port Adaptor (RJ-45 to DB9)
- *Dell PowerConnect ArubaOS Quick Start Guide*
- *End User License Agreement (EULA)*
- *Safety, Environmental, and Regulatory Information (SERI)* document
- *Warranty and Support Information* (WSI) document

Note: Inform your supplier if there are any incorrect, missing, or damaged parts. If possible, retain the carton, including the original packing materials. Use these materials to repack and return the unit to the supplier if needed.

Hardware Model Overview

Front View

Figure 1 *W-620 Series Front View*



ExpressCard Slot

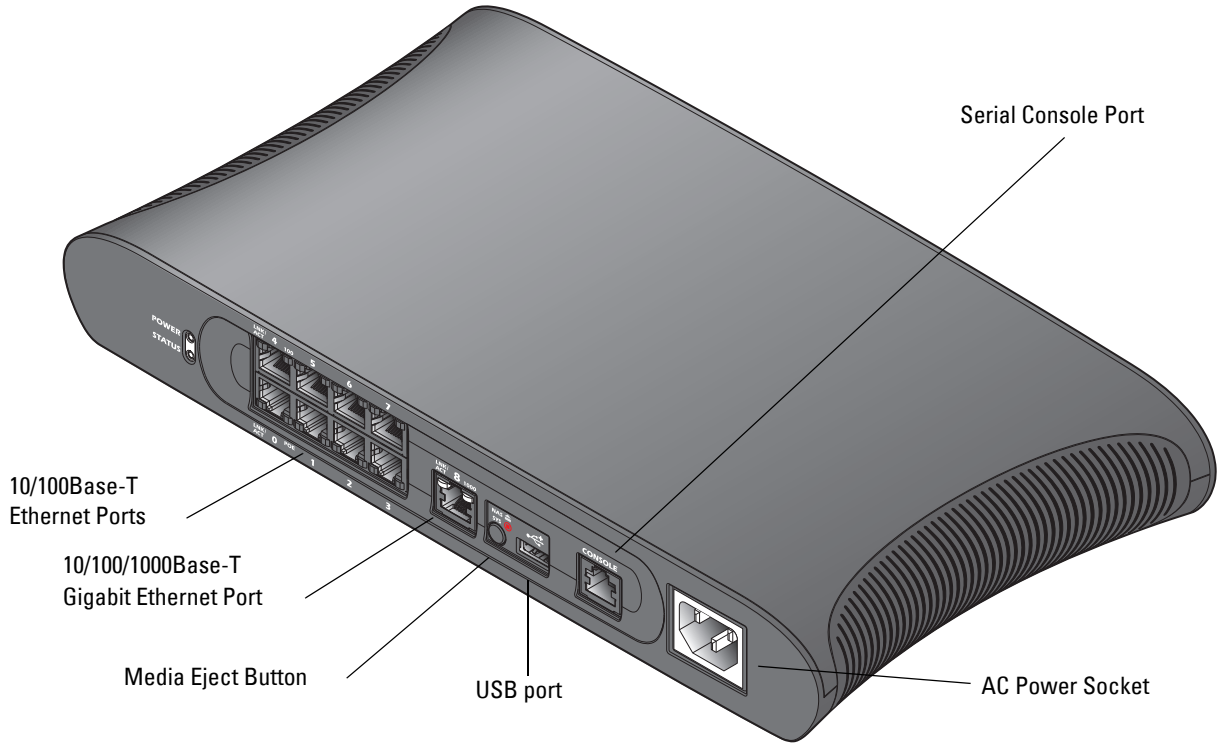
The W-620 Series is equipped with one ExpressCard slot, which can be used with an EVDO device.

Port LEDs

In non-rack deployments, the W-620 Series is placed with the front facing out. This allows the cables to be hidden and create a more aesthetically pleasing look. Therefore, a set of LEDs displaying link activity on the ports is placed on this side. For information about the behavior of these LEDs, see Table 3.

Rear View

Figure 2 *W-620 Series Series Rear View*



AC Power Socket

The W-620 Series supports integrated AC powering and the AC power socket on the rear of the unit is for use with an AC power cord (country-specific). Refer to Appendix A, “Specifications, Safety, & Compliance” on page 15 for power specification details.

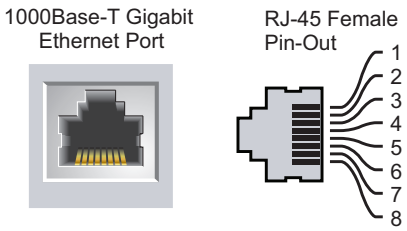
10/100BaseT Ethernet Ports

There are eight 10/100BaseT Ethernet ports on the W-620 Series. Ports 0 through 3 support Power over Ethernet (PoE). Ports 4 through 7 do not support PoE and do not have a PoE LED. Instead, they have an LED labeled 100, which indicates interface speed. For information about LED behavior, see Table 3.

10/100/1000Base-T Gigabit Ethernet Port

There is one 10/100/1000Base-T Gigabit Ethernet (RJ-45) port on the W-620 Series. Gigabit Ethernet uses all eight wires and each pair is used in a bi-directional fashion, meaning the same pairs are used for both data transmission and reception. Figure 3 illustrates the CAT-5 pin-out found on an RJ-45 connector. The CAT-5 pin-out pairs the following pins on a 10/100/1000Base-T Gigabit Ethernet port: 1/2, 3/6, 4/5, and 7/8.

Figure 3 *Gigabit Ethernet Port Pin-Out*

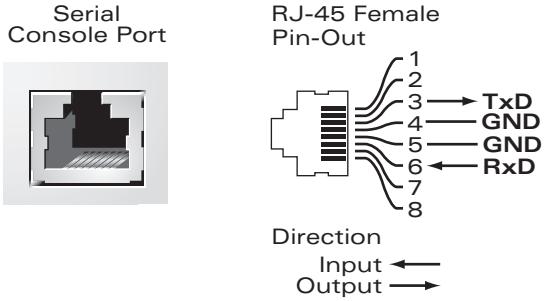


Signal Name	Function
BI_DA+	Bi-directional pair +A
BI_DA-	Bi-directional pair -A
BI_DB+	Bi-directional pair +B
BI_DC+	Bi-directional pair +C
BI_DC-	Bi-directional pair -C
BI_DB-	Bi-directional pair -B
BI_DD+	Bi-directional pair +D
BI_DD-	Bi-directional pair -D

Serial Console Port

A serial console port (see Figure 4) is provided for connection to a terminal, allowing for direct local management. The port's RJ-45 female connector accepts an RS-232 serial cable with a male connector.

Figure 4 *Serial Console Port Pin-Out*



Communication settings for the serial port are indicated in Table 1.

Table 1 *Console Terminal Settings*

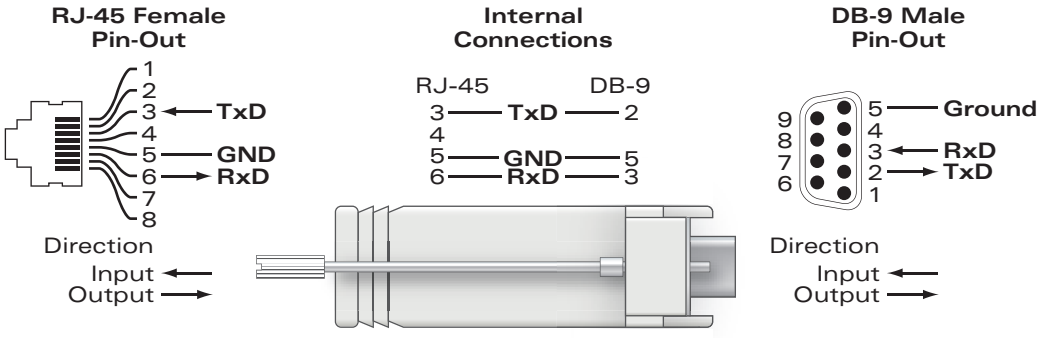
Baud Rate	Data Bits	Parity	Stop Bits	Flow Control
9600	8	None	1	None

Caution: Do not connect an AP to the serial console port. The serial console port is compatible only with RS-232 devices. Non-RS-232 devices, such as APs, are not supported.

Serial Console Port Adaptor

A modular adaptor can be used to convert the RJ-45 (female) connector to a DB9 (male) connector. Refer to Figure 5 for complete details.

Figure 5 *RJ-45 (female) to DB9 (male) Modular Adaptor Conversion*



USB Ports

The W-620 Series has one USB 2.0 interface. This interface allows the use of EVDO/HSPDA modem, flash or disk storage devices, or a printer. For more information about configuring and using USB devices with the W-620 Series, see the *ArubaOS User Guide*.

Media Eject Button

The W-620 Series is equipped with a media eject button, which allows users to eject a storage device safely and place the system in standby. When the button is pushed, the storage media device attached to the controller via USB are unmounted. Printers and EVDO devices are unaffected.

Pushing the media eject button changes the state of the W-620 Series; the table below describes the states and LED behaviors associated with use of the media eject button.

Table 2 *Media Eject Button LED Behavior*

Initial State	LED State	Action	Status LED	Function	LED Action Completed
NAS Media Operational	Green-solid	Press and hold media eject button for 1 to 5 seconds only	Amber-flashing	Un-mount NAS media	Amber-solid
NAS Media Unmounted	Amber-solid	Press and hold media eject button for 1 to 5 seconds only	Amber-flashing	Mount attached NAS device, and return to fully functional operation	Green-solid
Operational	Green-solid	Press and hold media eject button for more than 5 seconds only	Red-flashing	Controller goes into Standby	Red-solid
Operating with NAS Media un-mounted	Amber-solid	Press and hold media eject button for more than 5 seconds only	Red-flashing	Controller goes into Standby	Red-solid
Standby	Red-solid	Press media eject button	Amber-flashing	Controller wake-up	Green-solid

LED Status Indicators

Table 3 *W-620 Series LED Status Indicators*

LED	Label	Function	Indicator	Status
Power	POWER	Input Power Status Indicator	On (Solid Green)	Power on
			Off	No Power
Status	STATUS	Module Status Indicator	On (Solid Green)	Device is operational
			On (Solid Red)	Device failed or is in Standby
			On (Solid Amber)	Device is loading software
			Off	No power
10/100/1000Base-T Port	LNK/ACT	Link/Activity Status Indicator	On (Solid Green)	Link has been established
			On (Flashing Green)	Port is transmitting or receiving data
			Off	No link on port
	1000	Interface Speed	On (Solid Green)	1000 Mbps
			Off	10/100 Mbps
10/100Base-T Ports	LINK/ACT	Link/Activity Status Indicator	On (Solid Green)	Link has been established
			On (Flashing Green)	Port is transmitting or receiving data
			Off	No link on port

Table 3 *W-620 Series LED Status Indicators*

LED	Label	Function	Indicator	Status
	PoE	PoE Status Indicator	On (Solid Green)	PoE is being provided
			On (Solid Amber)	The attached device has requested PoE, but PoE is not being provided by the port
			Off	PoE is not being provided
	100	Interface Speed	On (Solid Green)	100 Mbps
			Off	10 Mbps

The following tools and equipment are required for installation of a W-620 Series controller.

- AC Power Cord (country-specific)
- Any ethernet cables required for your deployment

Caution: Installation and service of Dell Networks products should be performed by Professional Installers. Additional antenna and transmit power information for Professional Installers can be found at https://support.dell.com.

Physical Installation

Tabletop Deployment

To deploy an W-620 Series controller on a flat surface, such as a tabletop:

1. Insert the four rubber mounting feet to the bottom of the unit.
2. Place the unit on a hard flat surface.

Initial Setup and Network Connectivity

Once the physical installation is complete, run the initial setup on the controller to configure the IP address and other basic system information. For complete details and instructions, refer to the *Dell PowerConnect ArubaOS Quick Start Guide* for the software version installed on your controller.

Specifications

Physical Specifications

Device Dimensions :

- Height 1.75″ (45 mm)
- Width 12.6″ (320 mm)
- Depth 6.8″ (173 mm)

Power Management Specifications

- AC Input Voltage: 100-240 V, Universal Input
- AC Input Frequency: 50-60 Hz
- Maximum power consumption: 115 Watts
- Power over Ethernet total capacity: 78 Watts
- Power over Ethernet capacity per port: 19.5 Watts

Operating Specifications

- Operating Temperature Range: 0°C to 40°C (32°F to 104°F)
- Operating Humidity Range: 5% to 95% (RH), non-condensing

Storage Specifications

- Storage Temperature Range: 0°C to 50°C (32°F to 122°F)
- Storage Humidity Range: 5% to 95% (RH), non-condensing

Safety and Regulatory Compliance

Dell provides a multi-language document containing country specific restrictions and additional safety and regulatory information for all Dell hardware products. The *Dell PowerConnect W-Series Safety, Environmental, and Regulatory Information* document is included with this product.

△ **Caution:** Use of controls or adjustments of performance or procedures other than those specified in this manual may result in hazardous radiation exposure.

This product complies with 21 CFR Chapter 1, Subchapter J, Part 1040.10, and IEC 60825-1: 1993, A1: 1997, A2: 2001, IEC 60825-2: 2000.

For continued compliance with the above laser safety standards, only approved Class 1 modules from our approved vendors should be installed in Aruba products.

FCC Class B Device

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help (we can modify this to advise to seek help of the professional installer).

For a complete list of Country Specific Regulations please speak with your Dell Representative .

NOM Information (Mexico Only)

The following information is provided on the device described in this document in compliance with the requirements of the official Mexican standards (NOM):

Importer: Dell Inc. de Mexico, S.A. de C.V.
Paseo de la Reforma 2620-11° Piso
Col. Lomas Atlas
11950 Mexico, D.F.

Model Number: 620

- Supply Voltage: 100-240 V AC
- Frequency: 47-63 Hz
- Current consumption: 1.8 A

Additional Regulatory Compliance and Safety

- EN 55022 Class B
- EN 55024
- IEC/EN 60950
- CE Marking
- cTUVus Marked
- CB Scheme Certified

Proper Disposal of Dell Equipment

For the most current information on Global Environmental Compliance and Dell products please refer to the *Dell PowerConnect W-Series Safety, Environmental, and Regulatory Information* document is included with this product or see our website at www.dell.com.

European Union RoHS

Dell products also comply with the EU Restriction of Hazardous Substances Directive 2002/95/EC (RoHS). EU RoHS restricts the use of specific hazardous materials in the manufacture of electrical and electronic equipment. Specifically, restricted materials under the RoHS Directive are Lead (including Solder used in printed circuit assemblies), Cadmium, Mercury, Hexavalent Chromium, and Bromine. Some Dell products are subject to the exemptions listed in RoHS Directive Annex 7 (Lead in solder used in printed circuit assemblies). Products and packaging will be marked with the "RoHS" label shown at the left indicating conformance to this Directive.